Growing Pains for Environmental Justice Movement

"No justice, no peace!" So went the thunderous chants that rang out from a few hundred youth who drowned out a key plenary session at the Second National People of Color Environmental Leadership Summit. Held in late October 2002 in Washington, D.C., the summit was attended by representatives from numerous grassroots activist groups. Like the adult members of the environmental justice movement, the youth want a place at the table. "Like you, we don't want tokenism," said one member of Youth United for Community Action.

Such energy is just what the environmental justice movement needs if it is going to succeed in fighting growing conflicts with corporate interests, government entities, and others engaged in seizing land and communities for purposes such as nuclear testing and the extraction, production, and disposal of toxic, hazardous, and poisonous wastes. But first it must unite from within to work across cultures and among different communities. Building solidarity and sustaining the many cultures, races, and tribes involved are the leading challenges the environmental justice movement faces. "When we build the national agenda, we need to make sure the table is set for everybody," explained Pam Tau Lee, chairman of the Asian Pacific Environmental Network.

If the protests that erupted throughout the four-day summit are any indication, the challenges are multifaceted. Taking a cue from the youth, scores of non–English speaking attendees disrupted another plenary session the following day. They demanded that the remainder of the conference be translated for all nonnative speakers before many walked out of the meeting.

In essence, the protests represent a microcosm of the movement's internal friction; the fact that groups felt left out of their own meeting exemplifies the problems the movement faces in uniting. "We do not appreciate a discussion that we do not have the opportunity to participate in. We will not be disrespected," said Richard Moore, executive director of the Southwest Network for Environmental and Economic Justice. "We will do what it takes to make certain that we maintain the integrity of our environmental justice movement"—a movement that in theory strives for unity among many ethnicities and nations and works to protect all people of color, but in practice excluded factions of these very communities from its organizational meeting.

Summit speakers expressed not only the need to enhance alliances, collaborations, and cross-education, but to deal honestly with the issues of racism and classism that exist within the movement. Although women have assumed a leadership role in the movement in the past decade, tensions surrounding gender equality, sexism, and patriarchy remain and must be addressed if the movement is to be united, many participants asserted.

Yet despite the internal conflicts, summit participants did not lose sight of their common goals for the summit and the movement. "This environmental justice movement is really one of the most important movements going on in this country at this time," said Ashaki Binta, director of Black Workers for Justice.

Reaching Out

Representatives from all 50 states as well as Mexico, the Dominican Republic, Puerto Rico, Panama, Guyana, Ecuador, South Africa, and India attended the second summit, which was funded in part by the NIEHS. They represented more than 150 environmental justice organizations, reported summit project director Zenaida Mendez, up significantly since the first summit held more than a decade ago, also in Washington, D.C.

The United Church of Christ's Commission for Racial Justice convened the first summit in 1991. "It was probably the most important single event in the environmental justice movement's history," said Beverly Wright, chair of the executive committee and executive director of the Deep South Center for Environmental Justice at Xavier University in Louisiana. The first summit established the platform upon which today's environmental justice movement has been built, and established the 17 Principles of Environmental Justice to guide policy and values.

At its core, the movement is targeting ways in which communities of color in this nation disproportionately bear the brunt of harmful environmental practices. For example, the majority of uranium that has been extracted in North America has come from indigenous lands, leaving populations living there exposed to radiation. The same is true for gold and other resources—the largest coal strip mine straddles the Hopi and Navajo reservations in Black Mesa, Arizona. In general, U.S. federal agencies

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charged with enforcing civil rights laws have historically failed to address such forms of discrimination, Wright explained.

Many issues have become more pressing in the past year. "As America steps up its 'war on terrorism' and increases so-called homeland security, our communities actually feel more insecure," Wright said. "People of color are often the ones located closest to the refineries and petrochemical plants that are potential terrorist targets and the weapons production plants where lethal materials are stored. In an atmosphere where information is being withheld with national security as the justification, we are not even notified when such materials are being shipped through or near our communities."

Since the first summit, the environmental justice movement has grown to embrace global environmental issues. It has grown in size and diversity, too. Turnout at this event was estimated at more than 1,400, nearly double that of the first summit. The figure includes roughly 225 youth. "The environmental justice movement is a unique movement that is making significant contributions and strides that we should be proud of," said Joselito Laudencia, executive director of the Asian Pacific Environmental Network. "How many movements have an explicitly antiracist agenda and actively promote multicultural, multiracial, and multitribal constituency and leadership?" he asked.

Indeed, an Environmental Justice Timeline of Milestones released at the meeting notes many legal and legislative achievements over the intervening years. In 1992, the U.S. Environmental Protection Agency issued one of the first comprehensive government reports on environmental justice, and in 1993 the United Nations founded its Commission on Sustainable Development. In 1994 President Clinton issued an executive order to address environmental justice in minority and low-income populations, which was signed at the only major government-sponsored environmental justice symposium to date (for which the NIEHS was the lead government agency). That symposium marked a new beginning where community acitivists, government leaders, and academic researchers came together in dialogue, said Marian Johnson-Thompson, the institute's director of educational and biomedical research development. It also marked the initiation of NIEHS-supported environmental justice research requests for applications.

More milestones followed: In 1998 the Florida legislature passed a bill establishing the Center for Environmental Equity and Justice to develop policies and conduct research, education, training, and community outreach—the first such state act. In 1999 the U.S. Department of Agriculture settled in a class action suit brought by black farmers charging discrimination in administering of loan applications for federal support. Meanwhile, the list of successful campaigns and the establishment of environmental justice organizations and centers such as the Washington Office on Environmental Justice, a collaboration of community-based environmental justice networks and grassroots organizations, only continues to grow.

But the movement is at a critical juncture, Laudencia said. "Many of the tensions and struggles that have happened here at the summit are nothing new. These tensions have existed over the last ten years since the first summit. If these tensions . . . are not resolved, the divisions will deepen; we will lose the momentum in bringing in an exciting new leadership, including youth in this movement who will either be burned out or turned away by these internal conflicts."

The Summit Delivers

Even though the summit was punctuated by vocal protests by various factions of environmental justice constituents, significance progress was made at the meeting. A crowning achievement of the summit was passing the Principles of Working Together, which lays out basic guidelines to ensure mutual respect, allowing people from diverse backgrounds to work together meaningfully in the environmental justice movement.

The organizers believe it is important to stay true to the movement's grassroots origins and core principles. "There was serious work done on how we as a group must work together to move forward to ensure that it remains a grassroots-led movement," said Penn Loh, executive director of Alternatives for Community and Environment.

Summit representatives also passed a resolution against war in Iraq and 13 other resolutions on assorted national and international issues, including one on Vieques, Puerto Rico. The Vieques controversy revolves around the U.S. Navy's use of this island during the past half-century for live-fire training. Although the Navy recently agreed to cease its training there, unexploded ordnance litters the area near the live-fire range. The summit resolution was to see that the land is cleaned up.

Progress was made toward laying a philosophical base from which new environmental justice workers, groups, and networks can operate. Other tasks broached included broadening the scope of the environmental justice vision to strengthen its analysis and strategies with regard to economics, immigrant bashing, globalization, welfare, government accountability, and the overall health of communities; paving the way for concrete improvements in the lives of people of color over the next 10–50 years; and spurring growth of grassroots involvement to the level sufficient to achieve systemic change.

Workshop discussions covered everything from developing ethical alliances with mainstream environmental groups to transportation equity and transit justice. In the end, 24 policy papers were produced covering issues from children's environmental health to climate change. There was a consensus that, internationally, "climate change can be a unifying issue," Lee said.

Future Accountability

The obstacles seem daunting, however. Privatization, structural adjustment policies, and trade agreements make it harder for environmental justice communities to hold governments accountable, Laudencia said. For example, regulations seeming to favor industry's interests or even giving companies a free pass on past environmental violations are often written into trade agreements.

In fact, even the term "environmental justice" has been co-opted by government agencies and corporations, attendees noted. They charge that such entities have taken over use of the term and use it in introducing policies that often work against principles of the movement or, at minimum, dilute the real notion of environmental justice.

Moreover, many partnerships designed to help communities have had smaller payoffs than expected. For example, communities that have agreed to participate in research projects often see little return in exchange for their cooperation. In some cases, they have not been given access to survey data or study findings. This is not acceptable, Lee said.

At the same time, the movement has to accept responsibility for its future. "We have to be accountable for where we're going in the next ten years," said Benishi Albert, of the Sacred Alliance for Grassroots Equity Council. Such internal issues of sexism, paternalism, and ageism must also be addressed. "We have to clean house amongst ourselves," Albert said.

If the youth's enthusiasm is a fair barometer, the second summit succeeded in energizing the environmental justice movement, recognizing its milestones to date, and fostering a lively discussion on the emerging and ongoing issues that lie before it. "The youth are the future of the movement, and they seem more than up to the task," Lee said. **–Julie Wakefield**

Dust Busters Gather

Researchers have long known that occupational dust can pose health hazards—coal miners, construction workers, and others exposed regularly to dust on the job have a greater risk of developing respiratory disease than those who are not. But what about the dust-filled air the general public breathes on any given day? Might the increased severity of dust storms born in Africa and Asia take a toll on public health downwind in communities across the globe?

In 2001 a monster dust storm originating in the Mongolian Gobi touched countries that were oceans away, including the United States and Canada, and got North American researchers more acutely interested in examining this source of long-range pollution transport. Such Asian storms were the focus of the Sino–U.S. Workshop on Dust Storms and Their Effects on Human Health, held 25–26 November 2002 in Raleigh, North Carolina. If there was one consensus among the 80 participants at the workshop, it's that people will have to unite across national boundaries to fully understand, study, and combat this threat; every nation is an involuntary importer and exporter of dust.

The workshop included presentations on government program overviews, observations on Asian dust and its transport (including satellite imagery and remote sensing), modeling and forecasting of dust storms, effects of aerosols on the climate, properties of dust, and effects of dust on ecosystems and human health. Funding was provided by the National Aeronautic and Space Administration, the U.S. Environmental Protection Agency (EPA), the U.S. Department of Agriculture's Forest Service, the National Oceanic and Atmospheric Administration, and the NIEHS. The workshop was organized mainly by Chinese-American scientists, through the North Carolina Chapter of the Chinese Association for Science and Technology.

Lian Xie, an associate professor of marine and atmospheric sciences at North Carolina State University and cochair of the workshop, said the initiative of the Chinese-American scientists was fueled by both personal and professional interest. "Many of us lived through dust storms in China," he said. "We are also very concerned about the environmental consequences of the rapid economic development in China if land, water, and natural resource uses are not properly managed. We all want to see a sustainable development in China and the world."

Not Just Dust

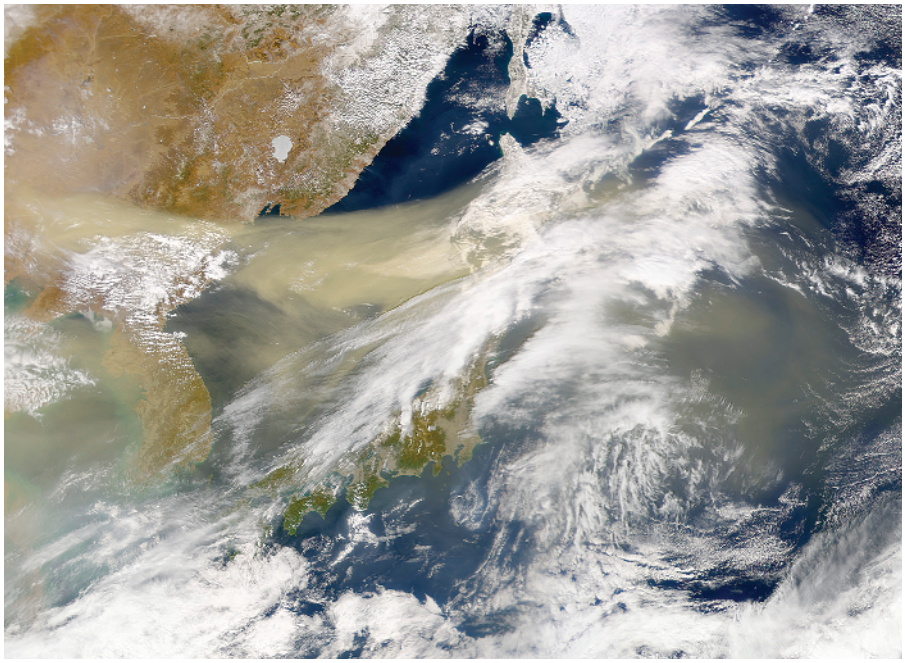
Dust transported by storms is known to contribute to a range of problems, including effects on marine ecosystems (such as a proliferation of "red tides" and coral reef decline) and interference with high-tech military instruments. It is further suspected as an aggravating factor in respiratory diseases (such as asthma), cardiovascular disease, and global climate change. Dust in clouds can suppress rainfall, exacerbating drought conditions in arid regions on a local scale. And because of its influence on radiative forcing, particulate matter in the atmosphere (including dust) may soon rival greenhouse gases in their contribution to global warming, said Carey Jang, project manager at the EPA's Office of Air Quality Planning and Standards.

But there's more to dust clouds than just dust—bacteria, fungi, viruses, and other microorganisms are carried with the clouds. The list of potential microbial hitchhikers includes *Aspergillis sydowii*, a soilborne fungus implicated in deaths of Caribbean sea fans, and insidious human pathogens such as those responsible for plague, hantavirus, bacterial meningitis, and tuberculosis. These microbes particularly threaten the compromised immune systems of more sensitive populations, including the elderly and young children. Dale Griffin, a microbiologist with the U.S. Geological Survey's Center for Coastal and Watershed Studies in St. Petersburg, Florida, estimated conservatively that a quintillion or more bacteria move through the atmosphere via dust transport each year. Griffin said research suggests that about 30% of culturable microorganisms in atmospheric dust are capable of causing disease in plants, trees, and animals.

Microorganisms aren't the only toxic hitchhikers in dust clouds. Chemicals from pesticides, herbicides, pharmaceuticals, toxic outputs from waste burning (such as dioxins and plasticizers, which are known carcinogens and endocrine disruptors), and industrial emissions also can be transported with the dust. The mineral structure of the dust itself also poses threats. For example, the fine iron particles that are the source of the reddish color of African dust can cause lung inflammation and, over time, scarring. The Asian dust storm season also coincides with the North American spring/summer, when pollution concentrations are already high.

Approaching an Evolving Phenomenon

Dust storms are not a new phenomenon. Pierre Biscaye, a research scientist at Columbia University's Lamont-Doherty Earth Observatory, said his research teams have provided a 100,000-year record of atmospheric dust transport from Asia to Greenland through ice core analyses. What has changed appears to be the intensity, rather than the frequency, of storms. Xie said that in analyzing the past decade of dust storms in China, the total number of storms per year decreased overall, but there was an increase in more intense storms.



Global choking. Dust storms—such as this March 2002 giant sweeping eastward off the Mongolian plains—whirl across the globe each year, carrying natural and man-made pollutants far from their sources and leaving environmental health problems in their wake.

SeaWiFS Project, NASA/Goddard Space Flight Center, ORBIMAGE

Thomas Gill, a research assistant professor at Texas Tech University's Wind Science and Engineering Research Center, likened the scenario to the escalating worldwide frequency of such weather-related events as hurricanes and tornadoes. "Perhaps it's an indicator that there may be a larger global climatic–scale phenomenon driving events that go beyond the threshold of our control," he said.

Dust storms result from weather phenomena such as wind, but also have human-influenced sources, such as improper land use in desert regions resulting in desertification. The extent to which humans contribute to the occurrence of dust storms is still unknown. This is just one of the questions that participants hope will be answered through a systematic "end-to-end" approach—starting with identifying the sources of dust and continuing to include transport, climate interaction, prediction, impacts on terrestrial and marine ecosystems, economy, society and human health, mitigation, and policy issues. According to Xie, one major accomplishment of the meeting was that representatives from five U.S. agencies, each responsible for a specific aspect of the dust problem, sat together at the workshop to discuss ways to solve the dust problem using this integrative, end-to-end approach.

"We should be cautious to parse the problem to manageable scales," said Joseph Prospero, a long-time researcher of African dust and director of the University of Miami's Cooperative Institute for Marine and Atmospheric Studies. "There are so many different aspects of dust generation and transport that one could look into, that we could end up with a 'shopping list' that's very long and would be rather chaotic." Prospero suggested choosing focus areas, and as one example proposed that a team of scientists with multiple perspectives and disciplines examine areas with repeated large-scale dust activity.

Ken Wilkening, an international environmental policy specialist and assistant professor at the University of Northern British Columbia, urged that Canada and the United States hold another conference, specifically on desertification and long-range transport of dust in the Pacific region, as soon as possible. He reiterated the current conference's goal of forming a trans-Pacific network of dust experts to share information and develop a consensus understanding of the state of the science of those topic areas. He also called for an international meeting within the next year or two that would include scientists and policy makers, although he noted that researchers should synthesize, summarize, and evaluate current knowledge before requesting policy action. **–Carla Burgess**

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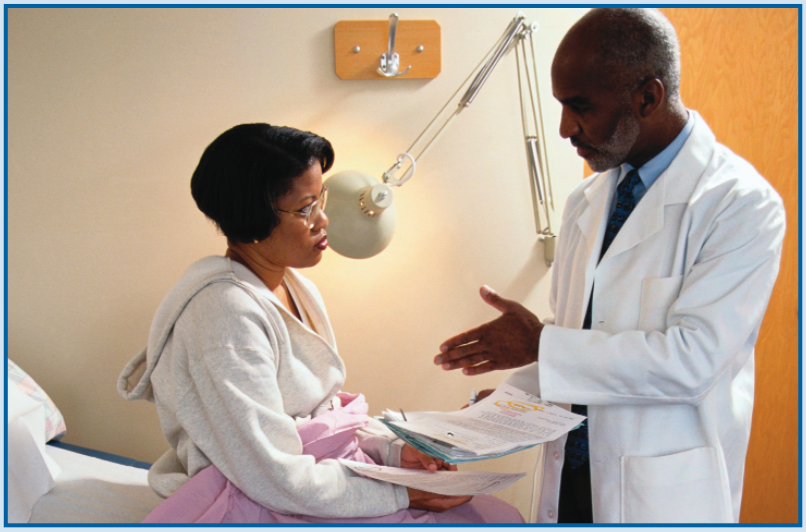

A Higher Risk of Congestive Heart Failure in Blacks: Genetics May Be Responsible

Small KM, Wagoner LE, Levin AM, Kardia SLR, Liggett SB. 2002. Synergistic polymorphisms of β_1- and α_{2C}-adrenergic receptors and the risk of congestive heart failure. N Engl J Med 347(15):1135–1142.

Congestive heart failure (CHF) is one of the leading causes of death in the United States: nearly 5 million people suffer from the most common forms of heart failure (idiopathic and ischemic), and about half of CHF patients die within five years. Predicting who in the general population or among those with some preexisting cardiac disease will develop CHF has been an elusive goal. However, racial differences in the incidence and progression of CHF and its response to therapy suggest that a genetic component is at play.

Two receptors—the presynaptic α_{2C}-adrenergic receptor and the postsynaptic β_1-adrenergic receptor—work together to control the release of norepinephrine and the resulting force of the heart muscle contraction. Polymorphic variations in these receptors that increase the release of norepinephrine could result in more forceful heart contractions over a period of years, leading to more heart failure. NIEHS grantee Stephen B. Liggett, of the University of Cincinnati College of Medicine and Howard Hughes Medical Institute, and colleagues investigated the incidence of these polymorphisms in a group of 348 black and white subjects who were either healthy or had heart failure. The results could explain why blacks have higher rates of CHF morbidity and mortality than whites.

For black subjects homozygous for the Del322–325 variant of the α_{2C}-adrenergic receptor, the risk of developing CHF was more than five times higher than for those subjects with other variants of this receptor. Among subjects who had not only the α_{2C}Del322–325 variant but also the Arg389 variant of the β_1-adrenergic receptor, the risk for heart failure was more than 10 times higher than for other subjects. (There was no increase in risk with the β_1Arg389 variant alone.) These subjects were invariably black; the α_{2C}Del322–325 variant is much less common in whites, occurring in only about 4% of this population (versus about 40% of blacks). In white subjects, the frequency of this variant was greater among patients with heart failure than among those without, but the extent of the risk to whites remains less well-defined.

Although the study was small and needs to be replicated in more subjects, it suggests that genetic screening could help to determine high-risk individuals. For people with both the α_{2C}Del322–325 and β_1Arg389 receptor variants, reduction of all other risk factors, such as smoking, high cholesterol, obesity, and inactivity, may be of added importance. **–Jerry Phelps**